2018 Climate Conference

Discovery: Reduction in photosynthesis correlation to atmospheric CO_2 increase.

Climate Change Truth Inc.

- Research activities and funding request.
  - Ocean Evaporation for better Weather Modeling
  - Reforestation of Amazon Rain-forest
  - Vertical and horizontal CO_2 distribution.

Outline

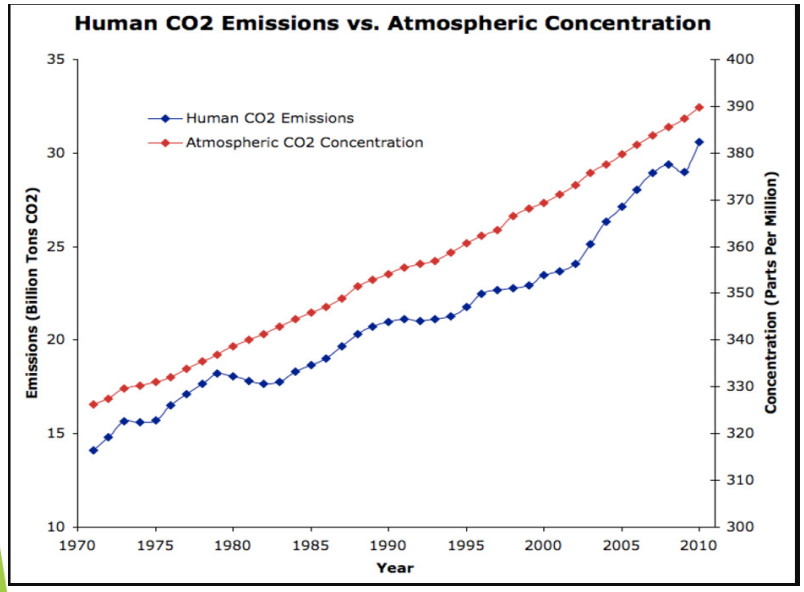
- Atmospheric CO_2
  - Where we are
  - Where we are going
  - Correct solution to lower Atmospheric CO_2
- Fair question.
- CO_2 does not freeze in upper atmosphere
- Ocean is not a sink for atmospheric CO_2
- Summary
- Acknowledgments

Next conference's

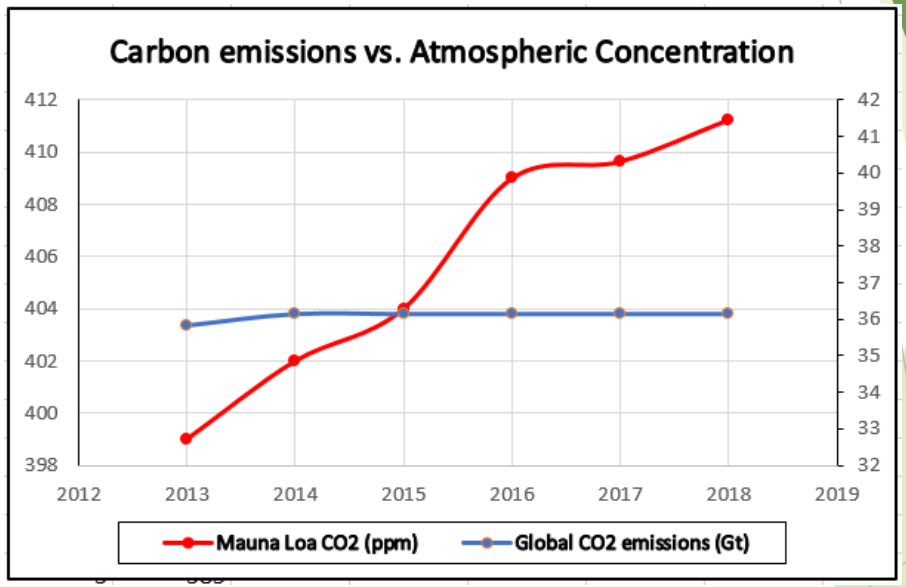
- I will present this truth in science at the following conferences:
  - AGU Fall Conference Washington DC
  - Paris Climate Conference 2019, Keynote Speaker
  - European Climate Conference 2019 Grease
  - Environmental Conference in Paris Feb 2019

Where we are

After spending $2 trillion we have:



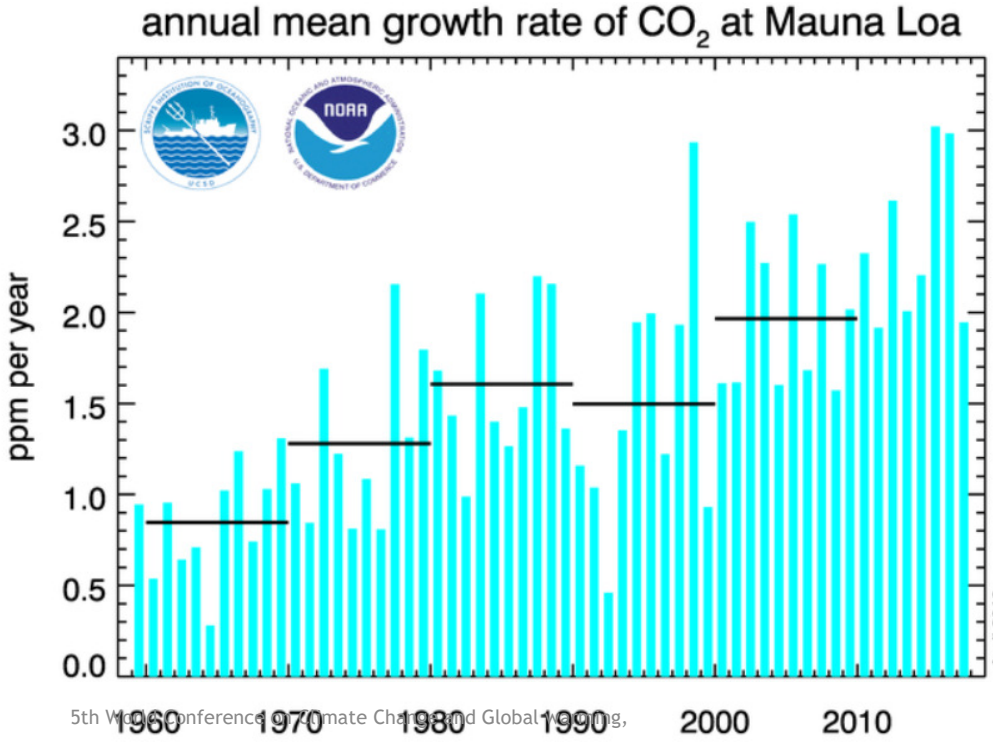
2008 $r_{xy}=0.87$

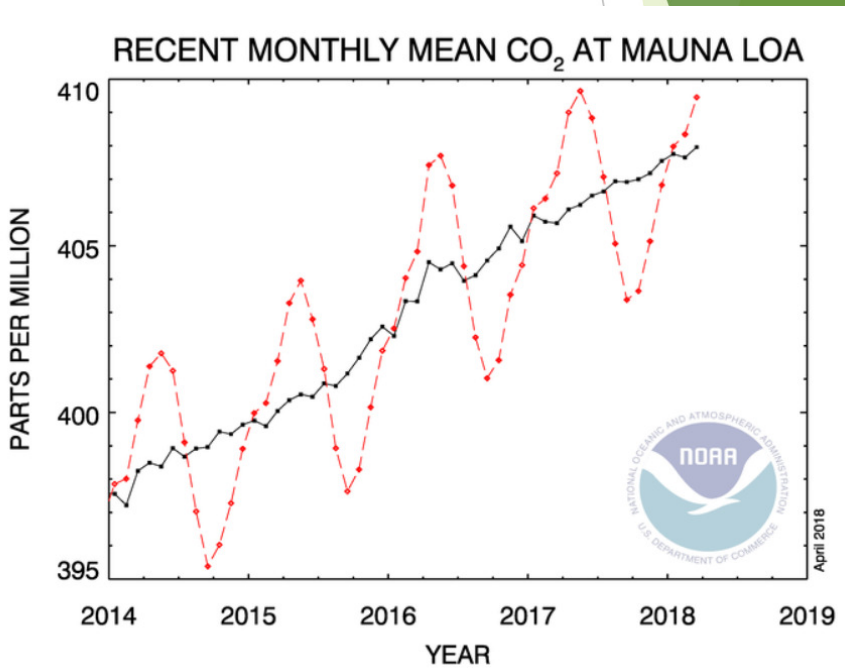


2018 $r_{xy}=0.72$

Mauna Loa CO_2 Growth Rate

Annual mean global CO_2 growth rate in increasing.





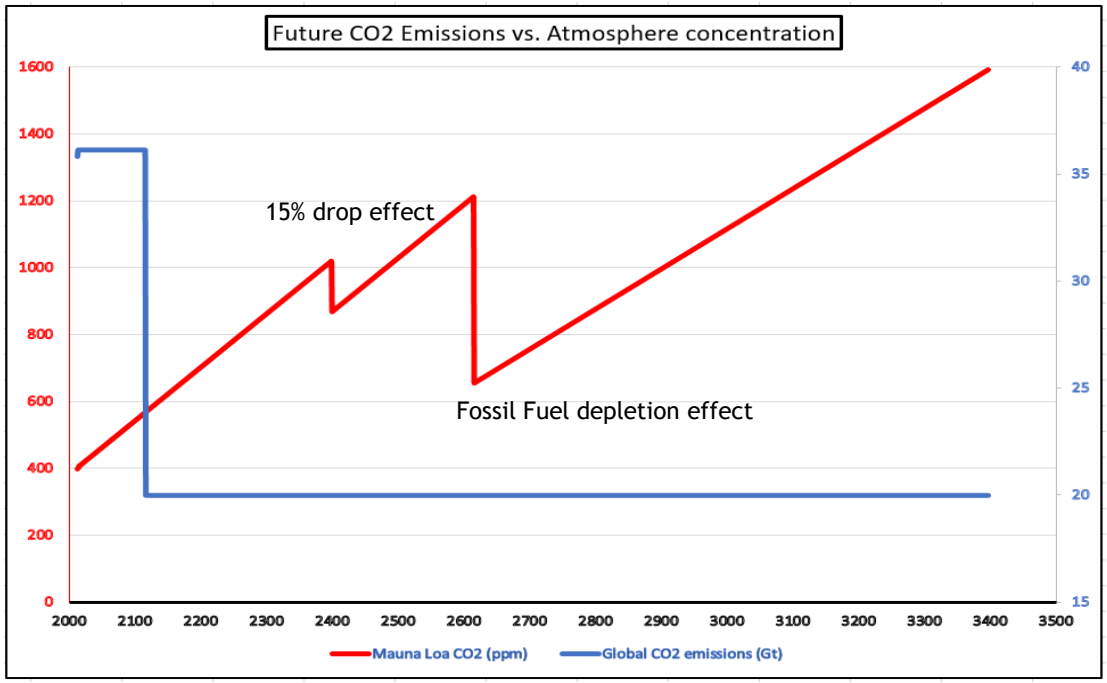
Where we are going

- Facts
  - Minimum residence time 500 years. Was 5 years
  - Most work is on carbon emission reduction
    - Reforestation efforts in China and North America ongoing.
  - Atmospheric CO_2 is “Extra” that is not consumed in photosynthesis
- Assumptions
  - Keep current carbon emissions level at 32 billion metric tons annually.
    - Decreases of carbon emissions will be offset by increases in population
  - Atmospheric CO_2 stays the same slope.
  - At 100 years no more oil so carbon emissions drop by 30%

D1

Future

- CO_2 emissions correlation shrinks with passing of time.
- **Goes to zero at 520 ppm, Year 2100**



5th World Conference on Climate Change and Global warming,

Slide 8

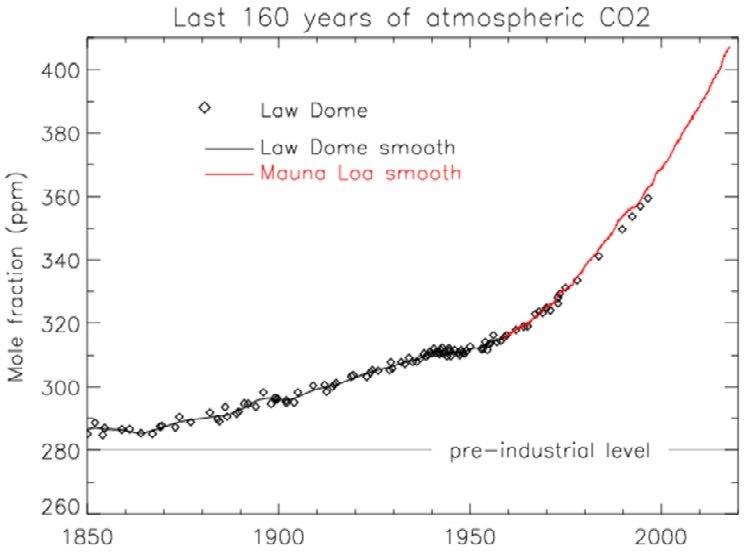
D1 Dave, 5/17/2018

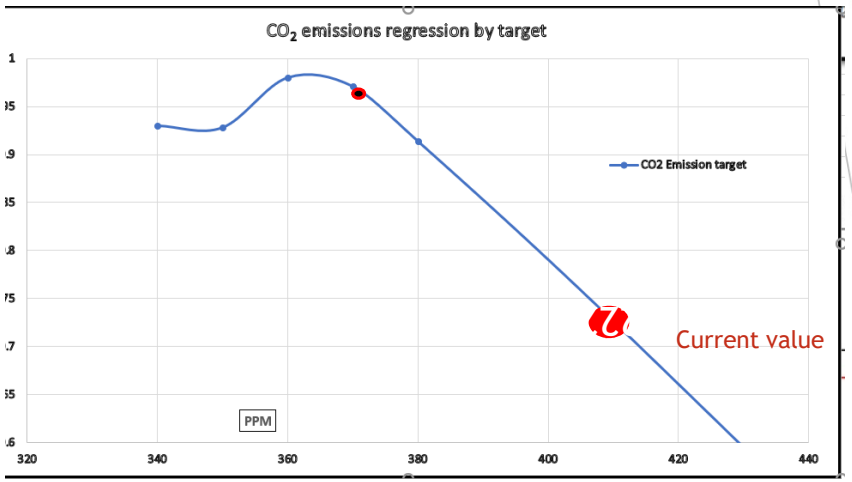
Pearson's regression

$$r_{xy} = \frac{\sum_{i=1}^{n}(x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^{n}(x_i - \bar{x})^2 \sum_{i=1}^{n}(y_i - \bar{y})^2}}$$

- r_{xy} can vary from -1 to 1.
- Value closer to |1| is best.
- May be used to find a perfect correlation between 2 sets of data by holding one set constant and changing the other until a maximum value greater than |.95| is obtained.

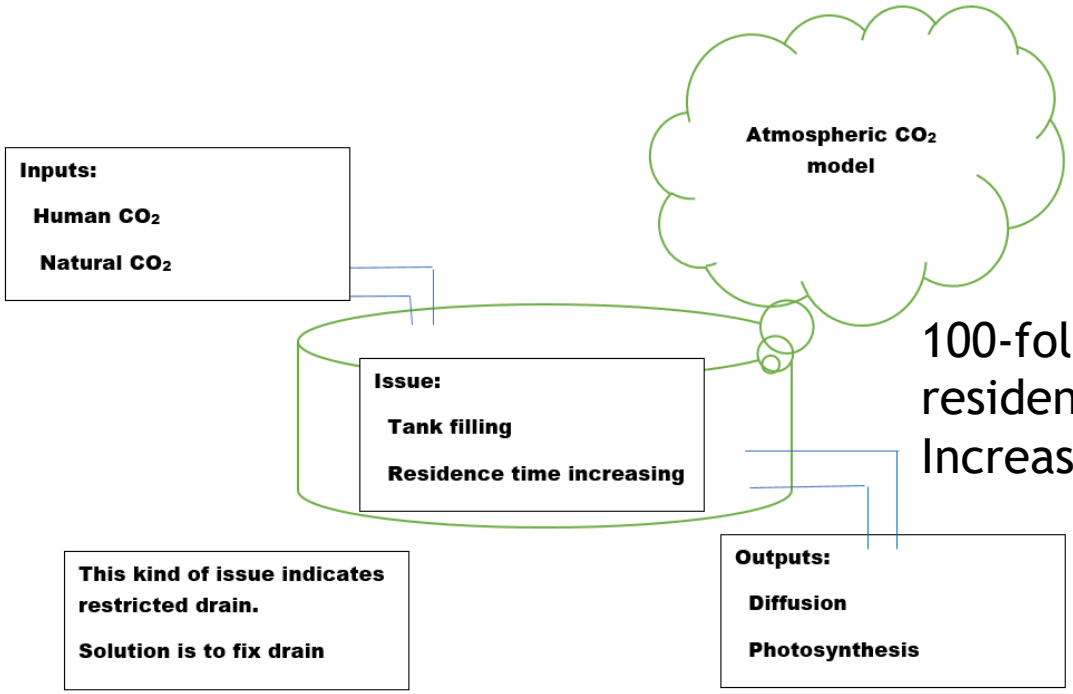
Pearson's regression





						-9.325	189.76375	414.1225	86.955625
						-7.325	141.73875	374.4225	53.655625
						-7.325	127.08875	301.0225	53.655625
1979	336	17			-13.35	-5.825	77.76375	178.2225	33.930625
1980	338	17			-11.35	-5.825	66.11375	128.8225	33.930625
1983	340	17.6			-9.35	-5.225	48.85375	87.4225	27.300625
1985	341	18.5			-8.35	-4.325	36.11375	69.7225	18.705625
1990	343	20.8			-6.35	-2.025	12.85875	40.3225	4.100625
1993	346	20.8			-3.35	-2.025	6.78375	11.2225	4.100625
1995	347	21			-2.35	-1.825	4.28875	5.5225	3.330625
1998	350	21.4			0.65	-1.425	-0.92625	0.4225	2.030625
2000	351	21.6			1.65	-1.225	-2.02125	2.7225	1.500625
2003	354	22.4			4.65	-0.425	-1.97625	21.6225	0.180625
2005	357	25			7.65	2.175	16.63875	58.5225	4.730625
2008	359	27			9.65	4.175	40.28875	93.1225	17.430625
2010	362	33			12.65	10.175	128.71375	160.0225	103.530625
2014	365	32.3			15.65	9.475	148.28375	244.9225	89.775625
2015	367	32			17.65	9.175	161.93875	311.5225	84.180625
2016	370	32			20.65	9.175	189.46375	426.4225	84.180625
2017	**370**	32.6			20.65	9.775	201.85375	426.4225	95.550625
					bottom	1641.492	1593.625	3356.55	802.7575
					top	1593.625		rxy=	**0.970839388**

Atmospheric CO_2 Tank Model

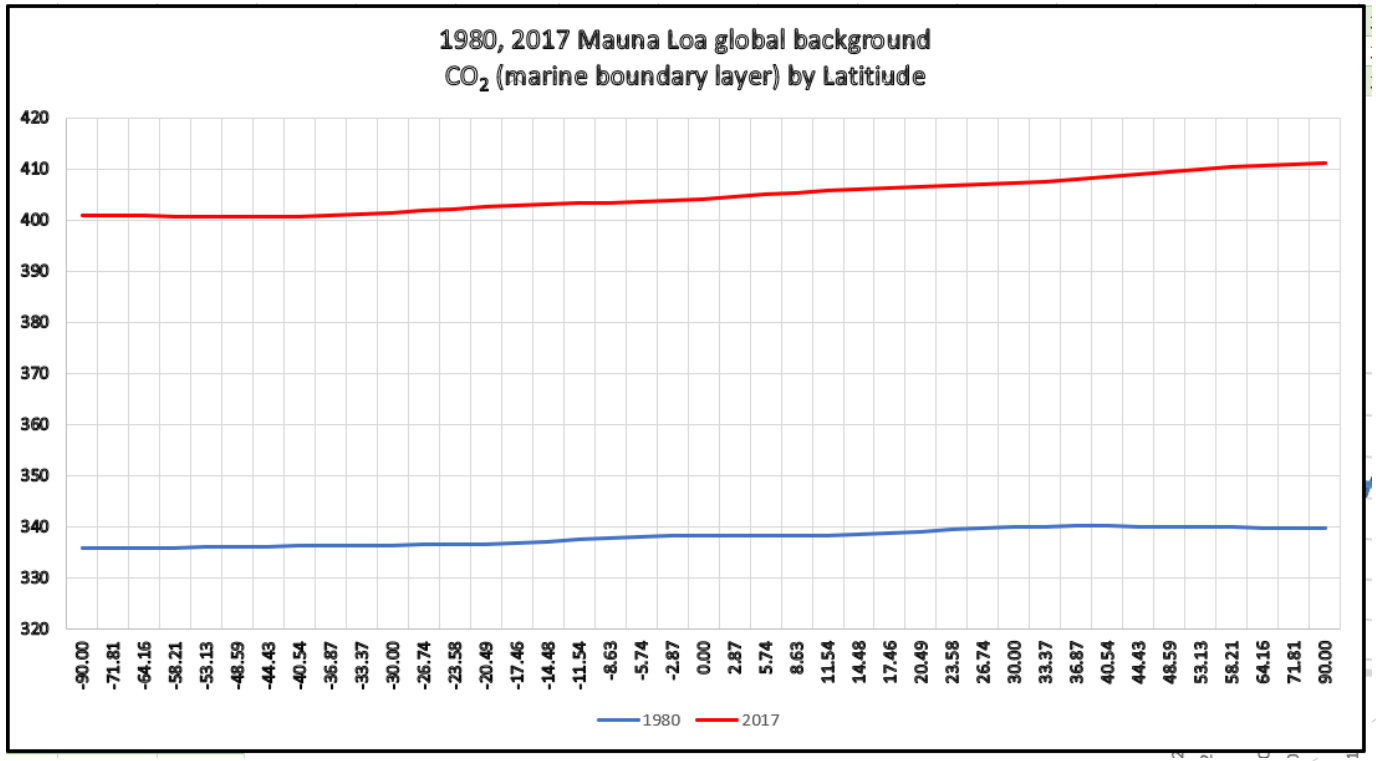


100-fold minimum residence time
Increase 5›500 years.

What Photosynthesis could be 48 ppm?

Atmospheric CO_2 by latitude

- CO_2 mixed by atmospheric winds.

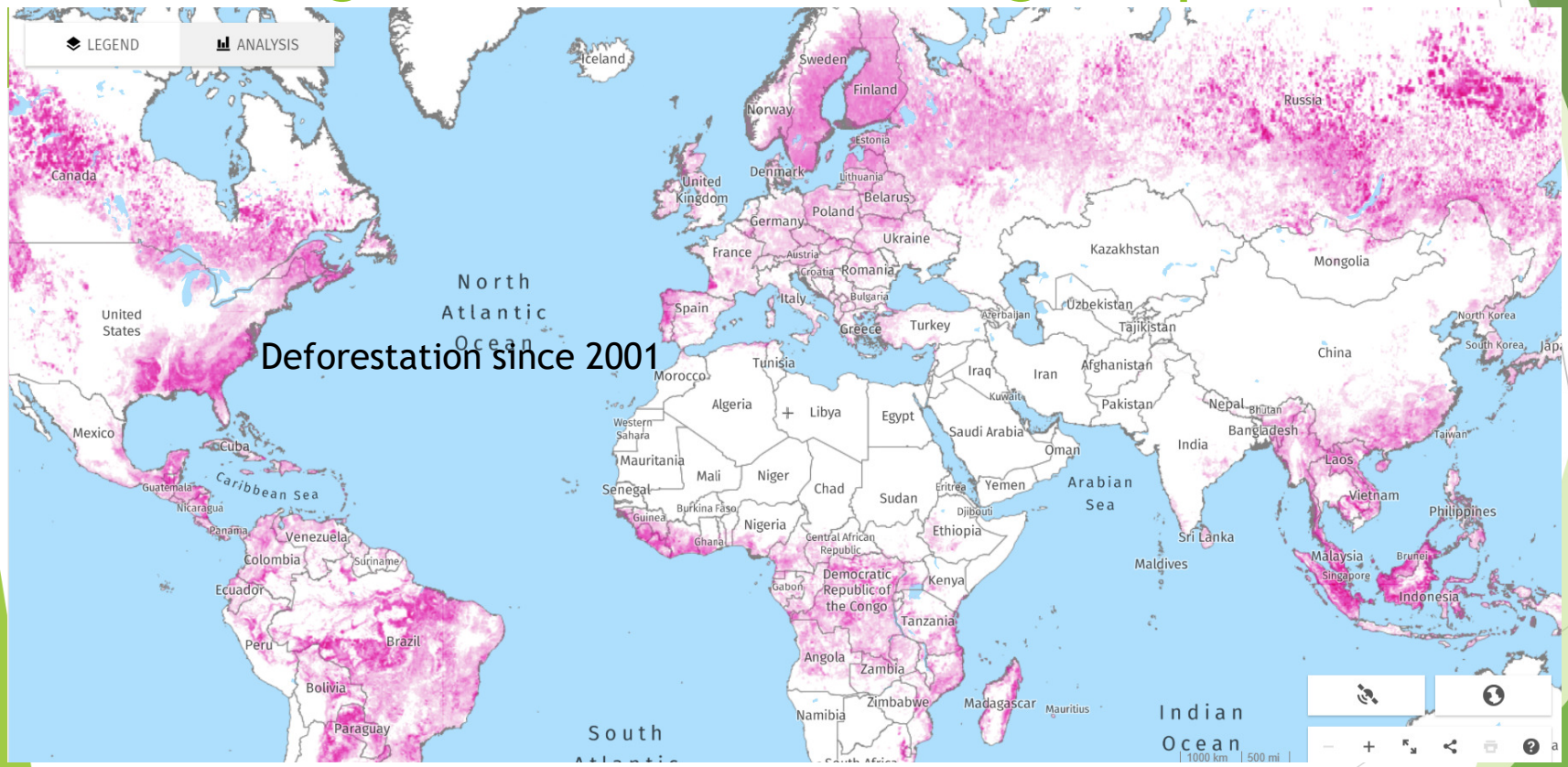


Courtesy Mauna Loa

Photosynthesis issues

- City sprawl is 1 billion tons lost CO_2 consumption annually
- IPPC forestry estimates 2-3 billion tons lost CO_2 consumption annually from bio-mass burning.
- Deforestation of 30 million acers annually in Amazon Rain-forest is 90 million tons lost CO_2 consumption. Total of 60 billion tons lost since 1950.
- More than 300 billion tons lost CO_2 consumption annually from Amazon Rain-forest switching. 19x our output.
- 11 billion tons of human emissions, 3 billion are deforestation issues. The switch over of the amazon to an oxygen sink and carbon dioxide producer is 10+ billion tons of unaccounted for CO_2 annually.

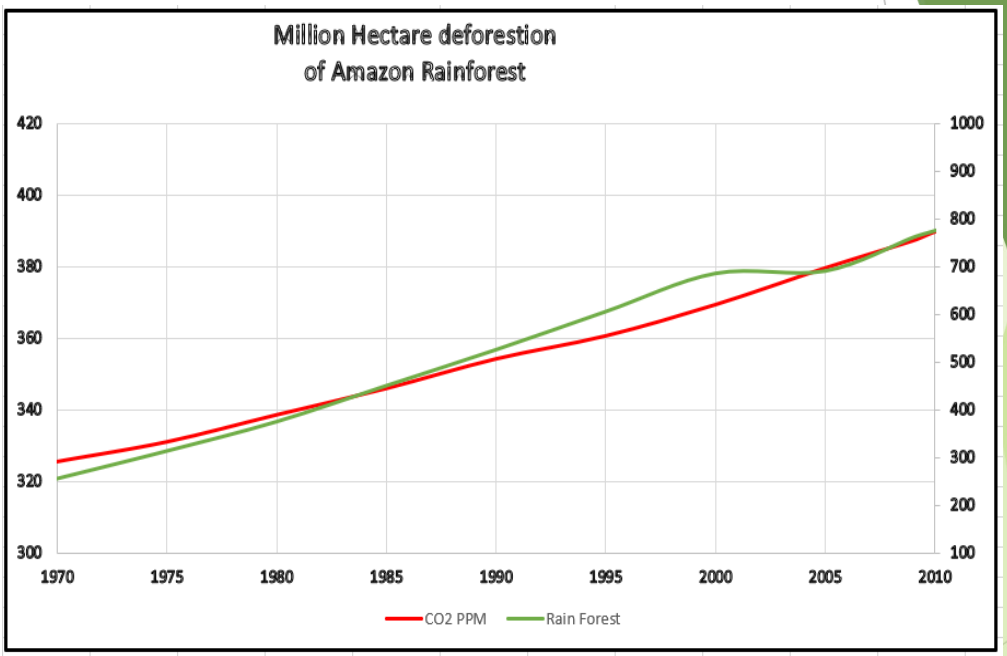
globalforestwatch.org/map



Amazon Rain-Forest

	x	-71.81	xbar	ybar	xi-xbar	yi-ybar	(xi-xbar)(yi-ybar)	(x-xbar)(x-xbar)	(y-ybar)(y-ybar)
year	CO_2 PPM	-71.81	369.7831	622.3462					
1970	325	255.2			-44.7831	-367.146	16441.93445	2005.523979	134796.2983
1975	331.2	313.2			-38.5831	-309.146	11927.80983	1488.653825	95571.34444
1980	339	374.7			-30.7831	-247.646	7623.310604	947.5978249	61328.61751
1985	346.12	450.2			-23.6631	-172.146	4073.50768	559.9412095	29634.29828
1990	354.39	525.7			-15.3931	-96.6462	1487.68168	236.9468172	9340.479053
1995	360.82	605.7			-8.96308	-16.6462	149.2007574	80.33674793	277.0944379
2000	369.55	685.7			-0.23308	63.35385	-14.76631953	0.054324852	4013.709822
2005	379.8	690.7			10.01692	68.35385	684.6952189	100.3387479	4672.248284
2010	389.9	775.3			20.11692	152.9538	3076.960757	404.6905941	23394.87905
2014	398.6	831.7			28.81692	209.3538	6032.93368	830.4150556	43829.0329
2015	400.8	845.8			31.01692	223.4538	6930.850757	962.0495172	49931.62136
2016	404.2	860.8			34.41692	238.4538	8206.84768	1184.524594	56860.23675
2017	407.8	875.8			38.01692	253.4538	9635.535373	1445.28644	64238.85213
							76256.50215	10246.35968	577888.7123
					bottom	76949.7			
					top	76256.5		rxy=	0.990991607

r_{xy}=0.99



Carbon Emissions correlation 363, Rain-forest photosynthesis lost 48 ppm.

Amazon Rain-forest

2 Billion acres deforested since 1950.

1950 start deforestation
1957 Atmospheric Carbon Dioxide started current increase
1970's trees and plants toppling over.

Burning of bio-mass each acre causes minimum 1 billion CO_2 release annually (6 months)
The massive release caused plants to grow to fast causing toppling and massive decay.

1990's Changeover to oxygen sink and carbon dioxide producer.

Massive decay causing the rain-forest to change to an oxygen sink and carbon dioxide producer.

One billion annual tons of carbon dioxide from biomass burning.
60 billion tons annual CO_2 consumption lost from deforestation.

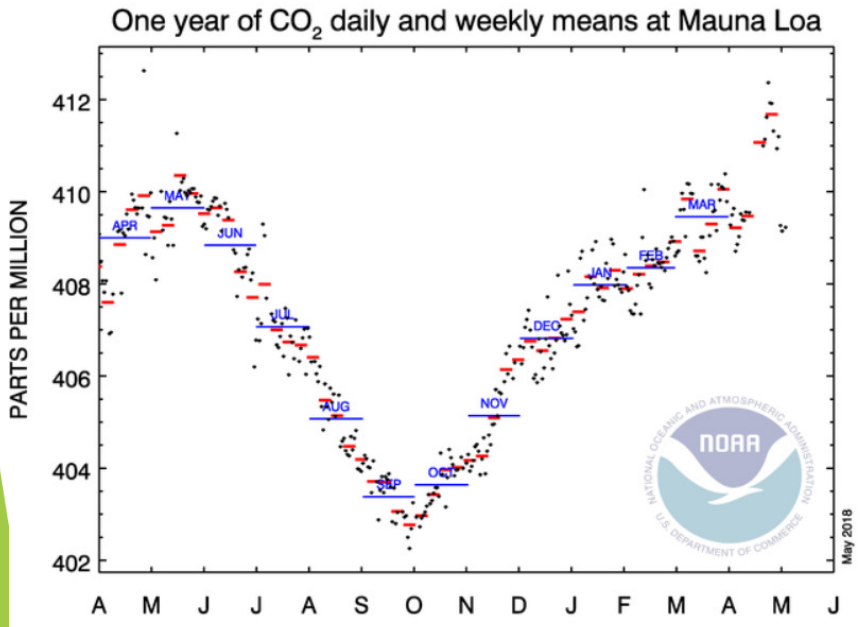
300-600 billion tons annual CO_2 consumption loss from the switch over.

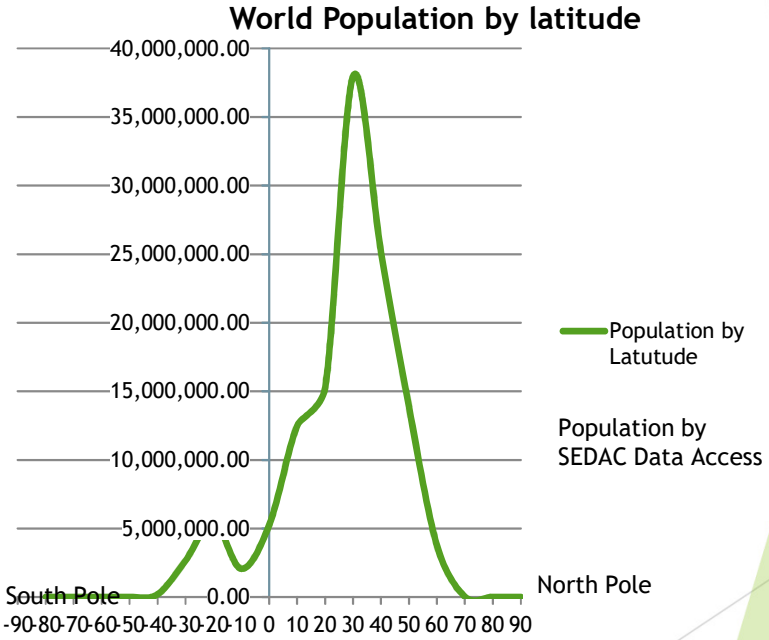
10-15 billion tons emissions from decay per annum
We have lost 20%+ of Earths Oxygen production.

5th World Conference on Climate Change and Global warming,

Mauna Loa harmonic trend

Increases during south hemisphere summer and decreases during their winter.

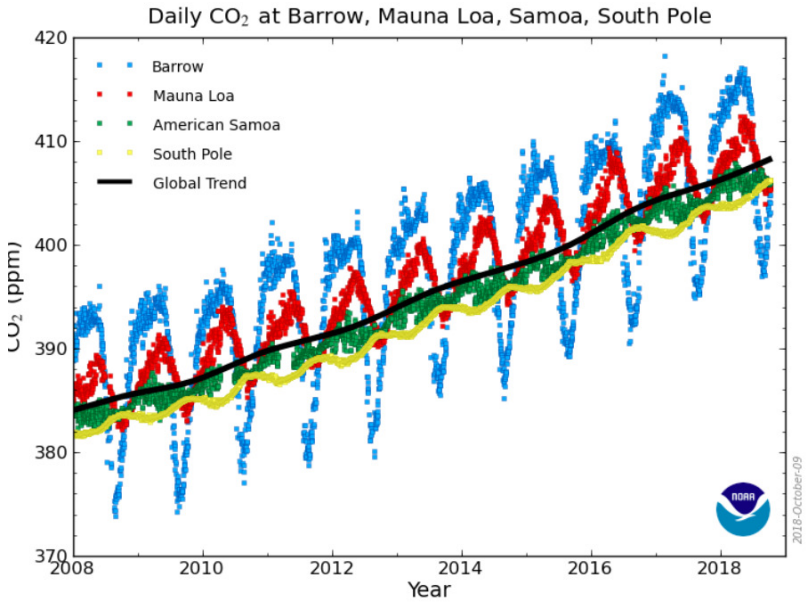




Decreases when Northern Hemisphere summer with more economic activity.

Mauna Loa harmonic trend

Strong (yellow line) at south pole



Annual Carbon dioxide

- Of the 36 billion annual tons of CO_2 emissions, the natural emissions are 21 billion tons and human caused are 15 billion tons.
- Amazon rain forest are 10-15 billion tons of additional carbon dioxide annually

Correct solution for Atmospheric CO_2

- Moratorium on Rain-forest deforestation starting now! All nations need to put pressure on Brazil and all south America to stop this. Not one more acre.
- Plant native trees and shrubs all over the world. 1 billion new in 2019-2020. Increase Photosynthesis.
- Stop deforestation in India and everywhere which is not sustainable.

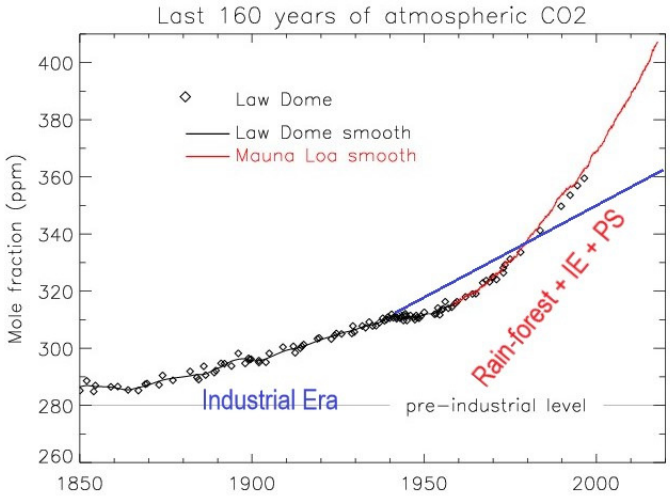
Planting Ideas

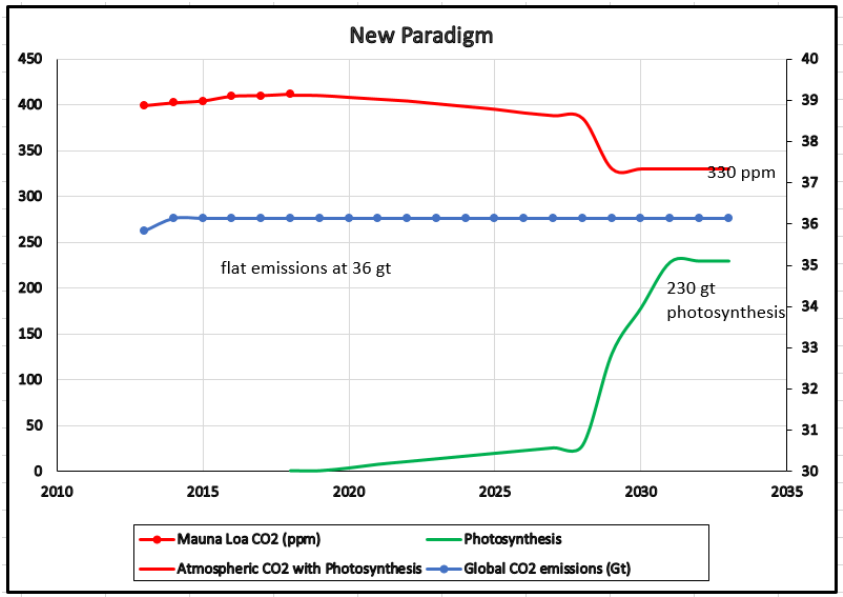
1. Provide space where public can come and plant trees and shrubs. All government-owned lands. Very small cost. Need website with document for each planting area.
2. Plant shrubs in all freeway medians and sides. This is revenue plus. Plant native shrubs at a minimal spacing so all light is used in photosynthesis. This will take in 1 ton of CO_2 emissions per acre per year right at the source. The space would not need to be mowed every week in the summer.
3. Get schools involved and planting massive number of trees and shrubs. In their property and the government property as in 1 above.
4. Parks can add trees and shrubs.
5. Tax incentive for business to plant trees and shrubs. Flat roofs which can structurally handle dirt can plant shrubs at minimum spacing and water using drip irrigation.
6. Wild fire attention. Get a retainer for the Jet plane and use it from the start on any wild fire.

This all government policy document is on the home page of cctruth.org

New Paradigm

- We have worked on Carbon Emissions.
- Lets work on Photosynthesis. Atmospheric CO_2 decrease by 2031.
- Drain atmospheric $C0_2$ like a bathtub.





Results

- Atmospheric CO2 rise has slowed! A 36% drop in rise!
- I called the USA Embassy's in
  South America
  India stopped deforestation of their rain-forest.
- China is increasing their forests by 1% each year for two years.
- On 11/11/2018 408.72. On 2/08/2018 411.37 ppm. Δ=2.65 ppm

Global Warming Potential

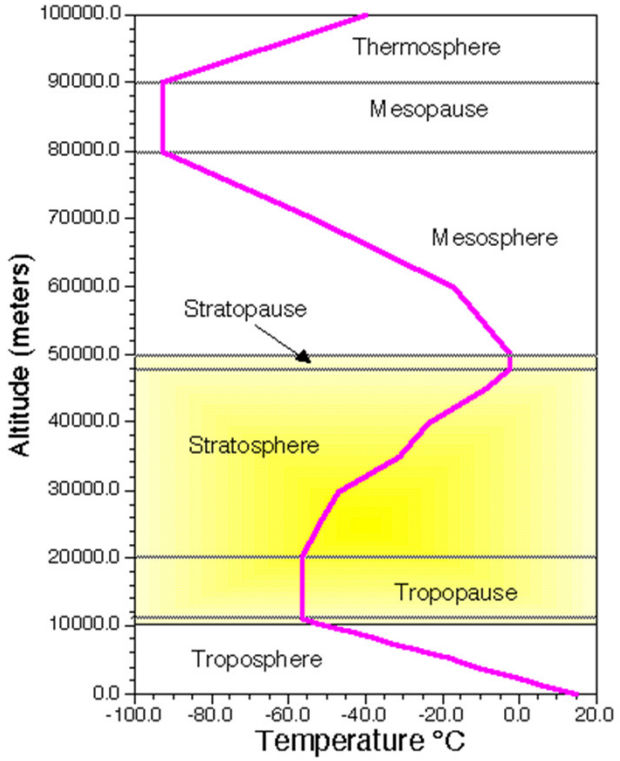
- Global warming potential is a calculation!
- Dr. T. J. Biasing of Oak Ridge National Laboratory exposed greenhouse gasses to long wave radiation.
Gas	Increased radiative forcing (Watts/m^2)
CO_2 ppm.	1.94
CH_4 Methane ppb.	0.50
N_2O Nitrous Oxide ppb	0.20
O_3 (Ozone)	0.40
- The remainder are negligible.

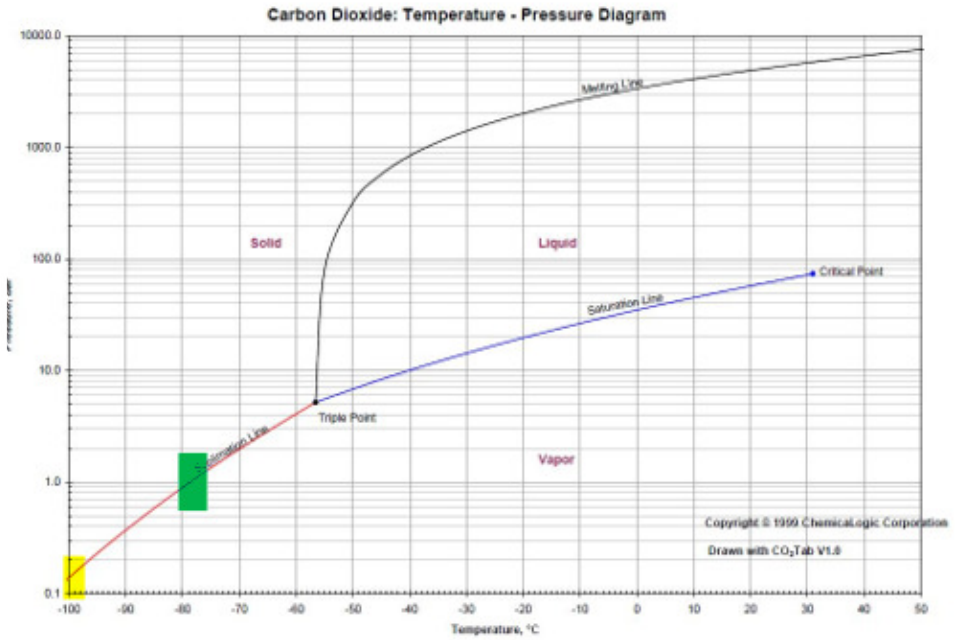
Fair Question

- This question should have been discussed in the beginning of climate change research.

- How much carbon emissions reduction equates to how much Atmospheric CO2 reduction?
  - **Land based photosynthesis consumes 15% of current emissions.**
  - **Land based is 50% of world-wide photosynthesis**
  - **We need to reduce emissions to less than 16 billion tons to get to equilibrium.**

CO_2 does not freeze in Mesosphere

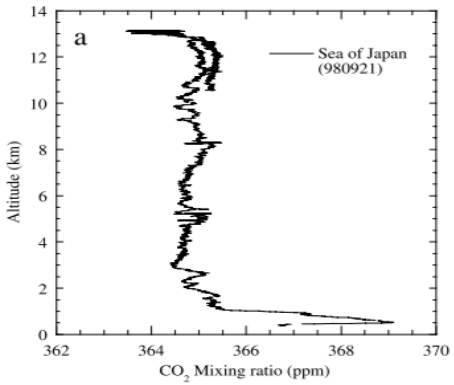




Pressure in Mesosphere is 1mb (1 millibar)

Ocean not a sink for atmospheric CO_2.

- Carbon dioxide diffusion in air at STP is 2 cm per month toward the exosphere. Rate limiting step.
  - Diffusion across ocean/air boundary is 14.8 cm per day.
  - Ocean wave curl and ocean spray capture a small amount of CO_2.
  - Photosynthesis from surface plants capture CO_2 but do not add to ocean CO_2.



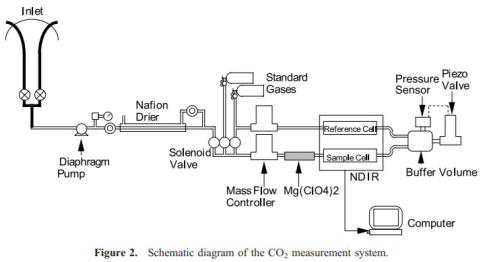
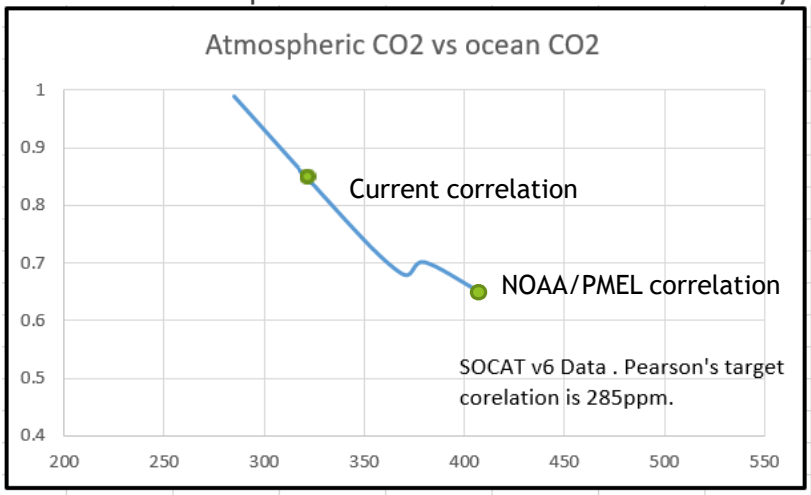


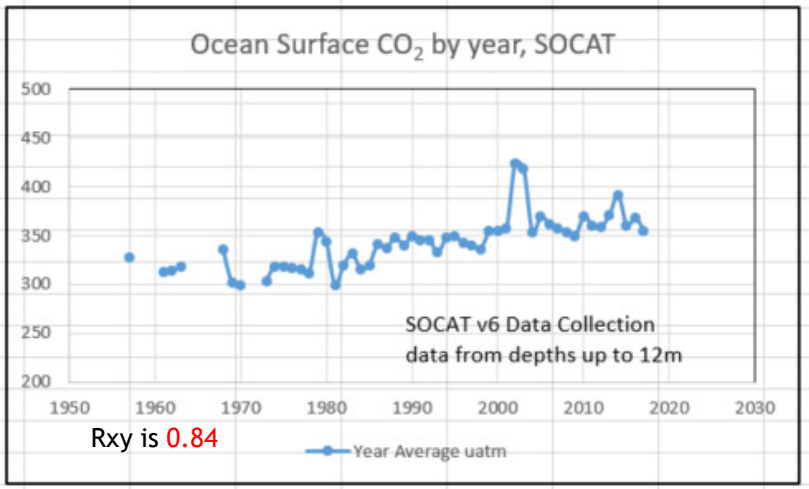
Figure 2. Schematic diagram of the CO_2 measurement system.

1998 Machida-san et all

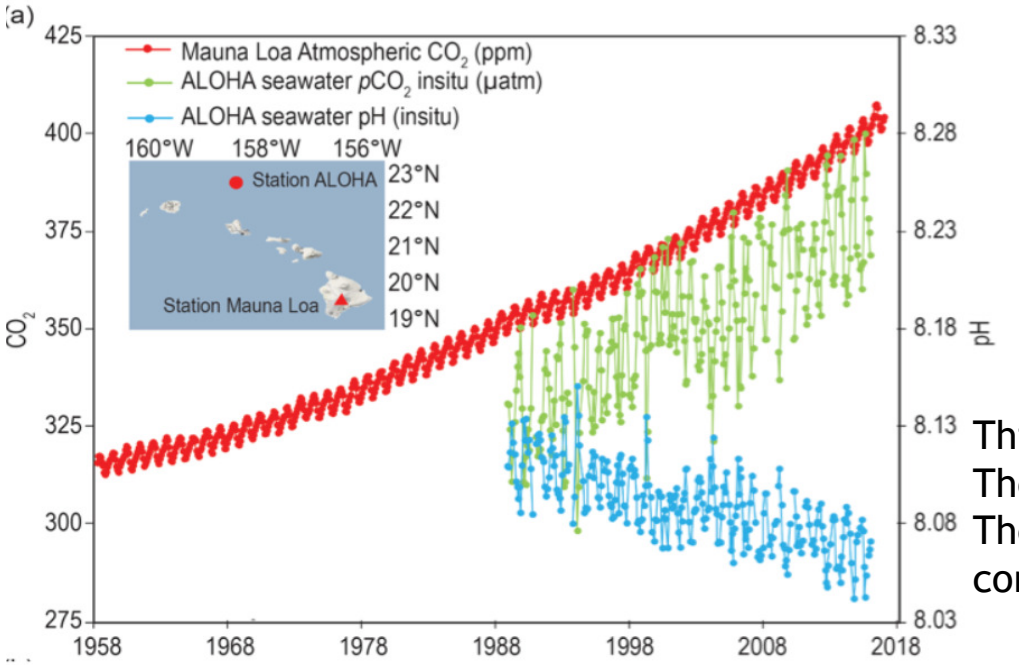
Ocean CO_2 data

- Garbage put into the oceans is one of the causes of ocean CO_2 increase.
  - In 2002 the Belgian ship, the Belgica went up the Petite Nèthe river near Antwerpen. The values for CO_2 were is the 7000 range.
  - That river is polluted with manure. Direct cause by decomposing debris for ocean CO_2 increase.





No correlation to current atmospheric CO_2.



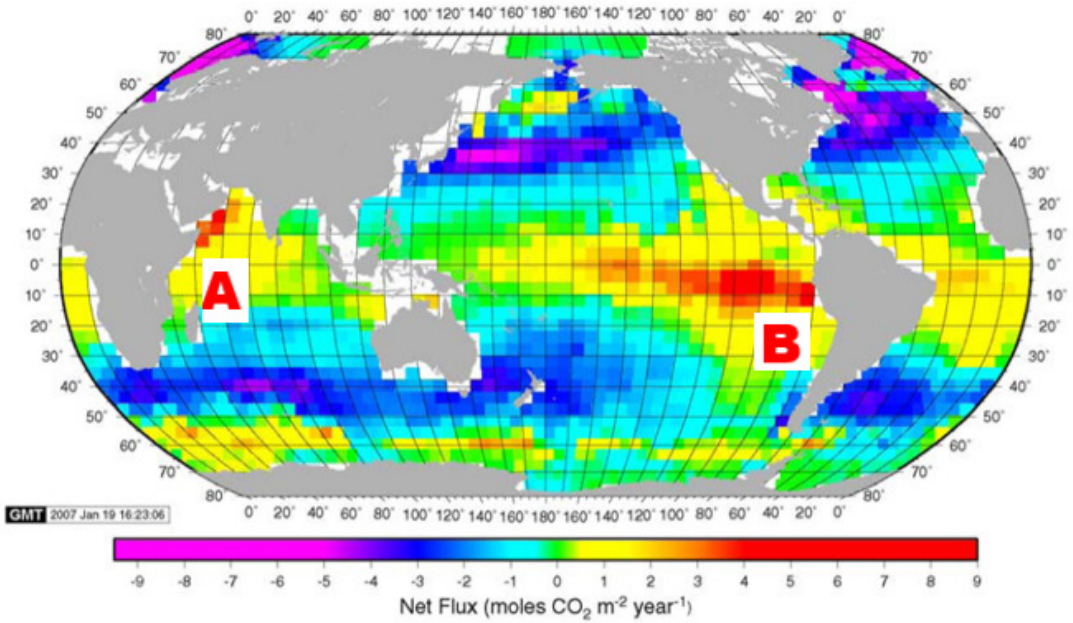
Time series of atmospheric CO_2 at Mauna Loa (ppm), surface ocean pCO2 (µatm) and pH at Ocean Station ALOHA in the subtropical North Pacific Ocean. Mauna Loa data: (ftp://aftp.cmdl.noaa.gov/products/trends/co2/co2_mm_mlo.txt); HOTS/ALOHA data: University of Hawaii (http://hahana.soest.hawaii.edu/hot/products/HOT_surface_CO2.txt).

Rxy=0.64

This is a subset of SOCAT data.
The regression by target applies
The small acid change is from continued volcanic activity.

No correlation to current atmospheric CO_2.

Ocean Flux or decay?



A is polluted rivers in SE Asia
B is most likely Cruise ship human waste decay.

Ocean Dumping Data

- Since 1968 the USA, Canada and Europe have stopped dumping garbage in the ocean.
  - Asian cities still do.
  - Every river in Vietnam is polluted and puts that pollution into the ocean.
- Cruise Lines dump human waste directly into the ocean.
  - 1.2 billion tons of CO_2 added from decay of human waste annually.

Summary

- Atmospheric CO_2
  - Not caused by carbon emissions. Caused by massive loss of photosynthesis. Mainly Amazon Rain-forest
  - Does not diffuse into the ocean. Ocean dumping is the cause of Ocean CO_2 rise.
  - Does not freeze in upper atmosphere.

Acknowledgments

- International Journal of Chemical Engineering
- International Journal of Environmental Science and Development
- 2018 Climate Change Conference Committee